

CLAIM AMENDMENTS

1. (Currently amended) A plasma processing apparatus, comprising:
a plasma processing chamber for processing therein an object to be processed;
antenna means for guiding microwaves into the plasma processing chamber; and
a dielectric member disposed between the antenna means and the plasma processing chamber;
wherein a surface of the dielectric member facing the inside of the plasma processing chamber has a ~~projecting shape~~ projection provided in a circumferential direction of the dielectric member, and
wherein the projection has a corner-shaped or edge shaped portion having a curved surface.

2. (Currently amended) A plasma processing apparatus according to claim 1, wherein the antenna means comprises a plane antenna ~~(RLSA)~~ member having plural slots.

3. (Currently amended) A plasma processing apparatus according to claim 1, wherein the ~~side of the dielectric member facing the inside of the plasma processing chamber is mirror polished~~ also has a projection provided in a radial direction thereof.

4-11. (Canceled)

12. (New) A plasma processing apparatus, comprising:
a plasma processing chamber for processing therein an object to be processed;
antenna means for guiding microwaves into the plasma processing chamber; and

a dielectric member disposed between the antenna means and the plasma processing chamber;

wherein a surface of the dielectric member facing an inside of the plasma processing chamber has a projection provided along longitudinal and transverse directions of the dielectric member.

13. (New) A plasma processing apparatus according to claim 12, wherein the antenna means comprises a plane antenna member having plural slots.

14. (New) A plasma processing apparatus according to claim 12, wherein the projection has a corner-shaped or edge-shaped portion having a curved surface.

15. (New) A plasma processing apparatus according to claim 12, wherein the dielectric member has a plurality of projections facing the inside of the plasma processing chamber, the projections are provided so that they constitute a crossing-type arrangement, and a crossing portion of the projections has a curved surface.

16. (New) A plasma processing apparatus according to claim 12, wherein the dielectric member has a plurality of projections facing the inside of the plasma processing chamber, and crossing of the projections is avoided.